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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/272,542	03/19/1999	PETER B. MADOFF	10575/002001	5785
26161	7590	09/23/2005	EXAMINER	
FISH & RICHARDSON PC			HEWITT II, CALVIN L	
P.O. BOX 1022			ART UNIT	
MINNEAPOLIS, MN 55440-1022			PAPER NUMBER	

3621

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/272,542	Applicant(s) MADOFF ET AL.	
	Examiner Calvin L. Hewitt II	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40, 55-58 and 64-78 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-40, 55-58 and 64-78 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Status of Claims

1. Prosecution on the merits of this application is reopened on claims 1-40, 55-58, and 64-78 and considered unpatentable for the reasons indicated below:
New art has been cited by the BPAI (Handa et al.).
Claims 1-40, 55-58, and 64-78 have been examined.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
3. Claims 1-13, 55-58, 64, and 71-78 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In order for a sequence of operational steps to be statutory the steps must produce a useful, concrete and tangible result. In addition, a sequence of operational steps must also be in the "technological arts" (*In re Musgrave*, 431 F.2d 882, 167 USPQ 280 (CCPA 1970)).

Claims 1, 55, 64 and 71 do not fall within the technological arts because no form of technology is claimed. Specifically, the claims are silent regarding the role of a computer for achieving a practical application, such as entering an

order or matching orders with responses (MPEP, 2100-17, section (ii), *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036). Hence, the claimed invention does not promote the progress of science and the useful arts. Claim 64 is also rejected as it is directed to a computer product that is *not* stored on a computer readable medium (MPEP, 2100-13, section (a)).

Claims 2-13, 54-58, and 72-78 are also rejected as they depend from claims 1, 55, or 71.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3, 24-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 3 and 24 recite changing the price of a submitted response.

However, the Specification is silent regarding a user submitting a response with a

relative price, then re-access the submitted response in order to update the price. And, although the Applicant refers to "new pre-defined relative conditions" the Specification is unclear as to how this relates to a submitted response price (Specification, figures 10A-B; page/line 19/5-22/3).

Claims 25-32 are also rejected as they depend from claim 24.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 3, 20, 21, 24-32, 38 and 77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 2, 20 and 77 are rejected for indefiniteness as it recites the language "less than or equal to about 30 seconds" (2173.05(b) "about"; *Amgen, Inc. v. Chugai Pharmaceutical Co.* 927 F.2d 1200, 1800 USPQ2d 1016 (Fed. Cir. 1991)).

b. Claim 3 recites the limitation "the price of the responses changes" in line 2. There is insufficient antecedent basis for this limitation in the claim.

c. Claims 3 and 24 recite updating a price for a submitted response. However, to one of ordinary skill it is not clear how this is

possible as the Applicant does not disclose how a user can submit a response with a relative price, then re-access the submitted response in order to update the price (Specification, figures 10A-B; page/line 19/5-22/3). Claim 77 contains similar language.

Claims 25-32 are also rejected as they depend from claim 24.

- d. Claim 21 recites the limitation "the process" in line 1. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 38 recites "pre-defined relative indications that can exist in the system before an auction for the product has started." However, claim 33, from which claim 38 depends clearly states that responses are entered in response to an order, therefore, claim 38 contradicts the condition for entering a response of claim 33. Otherwise, Applicant's "response" becomes the order and the "order" becomes the response as the response entered the system first (Specification, page 11, lines 20-32).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-19, 21-40, 55-58, 64-76 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverman et al., U.S. Patent No. 5,136,501 in view of Handa et al., "A Tale of Two Trading Venues: Electronically Delivered Orders vs. Floor Brokered Orders on the American Stock Exchange".

As per claims 1, 3-19, 21, 24-37, 39, 55, 57, 58, 64-67, 73-76 and 78, Silverman et al. teach a matching system comprising:

- entering an order for a product (e.g. financial instrument) specifying in the order a quantity of the product and an exposure time for which the order can be displayed for responses (abstract; figures 2, 4, and 5; column 8, lines 45-64; column 10, lines 2-10; column 21, lines 5-16)
- entering responses specifying a relative price to a generally accepted indicator and quantity (figure 4)
- matching the order with a first one of the responses that meets all of the conditions specified by the order (column 18, lines 55-58; column 20, lines 36-39)

- retrieving an oldest order and determining whether it satisfies the order (e.g. price condition) (column 16, lines 37-46)
- expiring an order at the end of its exposure time (column 21, lines 5-23)
- entering pre-defined relative indications (e.g. quantity, price, product) that correspond to a willingness to buy or sell the product the pre-defined relative indications specifying a price relative to a current market price (figure 4)
- matching pre-defined relative indications (figure 4) to the order with the pre-defined relative indications ranked by price and within a price ranking by time (column 18, lines 55-58; column 20, lines 25-33 and 36-40; column/line 20/67-21/5)
- determining if a match price falls outside a spread for the product (column 8, lines 45-64)
- a plurality of workstations for entering orders and responses (figures 1-3)
- a server for matching responses and orders (abstract; figures 1-3)
- orders with conditions including executing all of the order or none of the order (column 21, lines 8-11)

[Claims 24, 39, and 57] Silverman et al. teach a "ticker" that provides users (figures 2 and 5; column 8, lines 45-64) with the status of an order book for a financial instrument (figures 2 and 4; column 8, lines 45-64). Specifically, teach displaying a "best bid/offer" (column 8, lines 55-58) and updating a best bid/offer to reflect received responses (figures 4 and 13-18). Therefore, it is at least

obvious that one of ordinary skill would submit a response with a superior price compared to the best bid/offer (figures 4 and 13-18). Silverman et al. do not recite the term "price improvement". However, Handa et al. explicitly *recite* and teach buy and sell orders with price improvement (page 1, "Introduction", second paragraph; page 3, footnote 6) as well as contra-side orders (page 1, footnote 2; page 3, section 2). Handa et al. also disclose keeping a pre-defined relative indication undisclosed until matched with an order (page 3, section 2, third paragraph- page 4, line 5) and stock or security order processing at the AMEX (abstract). Therefore, it would have been obvious to one of ordinary skill to incorporate price improvement into the system of Silverman et al. as it is an important part of the underlying price discovery ('501, figure 4) process (page 1, "Introduction", second paragraph).

As per claims 22 and 23, financial markets are old and well known. Hence, it would have been obvious to one of ordinary skill to use a broker dealer or market maker to buy or sell a financial instrument and for the buy or sell order to be executed in any fashion in order to achieve the best trade, maximize profit, or make a market. Similarly, clearing organizations are old and well known.

As per claims 38, 40, 56, and 68-72, Silverman et al. disclose an order book system for matching orders (e.g. "fill or kill") with conditions (e.g. exposure time, price and quantity) (column 21, lines 5-16), pre-defined relative indications (e.g. price relative to a market price) (figure 4) such as executing all of the order

or none of the order (column 21, lines 8-11), with responses (abstract). Silverman et al. also teach withholding book data from users (figures 4 and 5; column 10, lines 21-28). However, Silverman et al. do not specifically recite pre-defined relative indications that can exist in the system before an auction for the product has started. Handa et al. teach a book system where orders (i.e. Applicant's responses) are maintained in secret until a contra-side order arrives (i.e. Applicant's order) (page 3, section 2, third paragraph). Handa et al. also disclose price improvement (page 1, "Introduction", second paragraph; page 3, footnote 6). Therefore, it would have been obvious to one of ordinary skill to modify the order book system ('501, figure 4) of Silverman et al. to maintain "not-held" orders in order to prevent a price change that would adversely affect a customer (Handa et al., page 3, section 2, fourth paragraph).

10. Claims 2, 20 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverman et al., U.S. Patent No. 5,136,501 and Handa et al., "A Tale of Two Trading Venues: Electronically Delivered Orders vs. Floor Brokered Orders on the American Stock Exchange", as applied to claim 1 above and in further view of Hawkins et al., U.S. Patent No. 6,029,146.

As per claims 2, 20 and 77, Silverman et al. teach a system for matching buy and sell orders (abstract) where orders have exposure times (column 21, lines 5-16). Silverman et al. also disclose a user viewing order activity (figure 5;

column 10, lines 2-10), therefore it would have been obvious for a trader to place an order with pre-defined relative conditions such as price, quantity and product, in response to orders in the order book (figures 4 and 5). Handa et al. teach price improvement (page 1, "Introduction", second paragraph; page 3, footnote 6. However, neither Silverman et al. nor Handa et al. specifically teach exposure times of 30 seconds. Hawkins et al. teach an order creation program where a user can create an order with specific price, quantity and time limit parameters (figures 10 and 11) and these parameters are entered before the order is entered (i.e. the process of filling out the order) (figures 10 and 11). Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Silverman et al., Handa et al. and Hawkins et al. in order to allow a user to more accurately express her/his trading interests, such as to consummate a transaction before the end of a user's session (e.g. 1 hour, 30 minutes, 1 minute, 30 seconds, etc.) ('501, column 21, lines 13-15; Handa et al., page 4, footnote 9).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Calvin Loyd Hewitt II whose telephone number is (571) 272-6709. The Examiner can normally be reached on Monday-Friday from 8:30 AM-5:00 PM.

Art Unit: 3621

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, James P. Trammell, can be reached at (571) 272-6712.

Any response to this action should be mailed to:

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c/o Technology Center 2100

Washington, D.C. 20231

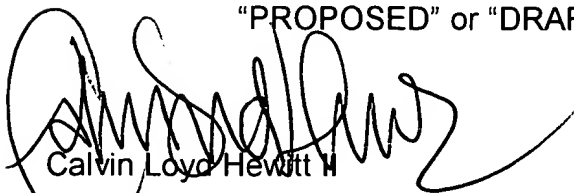
or faxed to:

(703) 872-9306 (for formal communications intended for entry and after-final communications),

or:

(571) 273-6709 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")



Calvin Loyd Hewitt II

August 29, 2005



APPROVED
JOHN J. LOVE
DIRECTOR TC 3600